

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

- Sub
B1
1. A method for the in vivo detection of fibrin in a patient, said method comprising:
- administering to said patient an effective amount of a detectable reagent comprising a plurality of discrete particles dispersed in a pharmaceutically or veterinarily acceptable carrier, diluent, excipient and/or adjuvant, each of said particles comprising a detectable marker encased in a plurality of layers of carbon and being capable of binding to fibrin; and
- detecting the presence of said detectable marker in said patient.
2. A method for the detection of fibrin in a source, said method comprising:
- supplying to said source a detectable reagent comprising a plurality of discrete particles dispersed in a carrier, diluent, excipient and/or adjuvant, each of said particles comprising a detectable marker encased in a plurality of layers of carbon and being capable of binding to fibrin; and
- detecting the presence of said detectable marker in said source.
3. A method according to claim 1 or 2, wherein each of said plurality of particles is hydrophilic and comprises said detectable marker encased in from 2 to 10 layers of graphitic carbon.
4. A method according to claim 1 or 2, wherein the carrier is an aqueous medium or solution.
5. A method according to claim 4, wherein the aqueous medium or solution is 5% glucose in water.
6. A method according to claim 1 or 2, wherein each of said discrete particles has a cross-section of from about 5nm to about 30nm.
7. A method according to claim 1 or 2, wherein said reagent is administered in an amount such that the dose comprises about 100 ng or less of said particles..
8. A method according to claim 1 or 2, wherein said detectable marker is detectable by radiochemical techniques, magnetic resonance imaging or is optically detectable.
9. A method according to claim 1 or 2, wherein said detectable marker is selected

from the group consisting of radionuclides which emit gamma rays, Gd or Au.

10. A method according to claim 9, wherein said detectable marker is ^{99m}Tc .

11. A detectable reagent for use in the in vivo or in vitro detection of fibrin, said detectable reagent comprising a plurality of discrete particles dispersed in a carrier, diluent, excipient and/or adjuvant, each of said particles comprising a detectable marker encased in a plurality of layers of carbon and being capable of binding to fibrin.

12. A detectable reagent according to claim 11, wherein each of said plurality of particles comprises a detectable marker encased in from 2 to 10 layers of graphitic carbon, at least an outer layer of said layers being chemically modified to permit a stable chemical association of the layer with aqueous medium or solution.

13. A detectable reagent according to claim 11, wherein the outer layer comprises hydrolysed graphite.

14. A detectable reagent according to claim 11, wherein the carrier is an aqueous medium or solution.

15. A detectable reagent according to claim 14, wherein the aqueous medium or solution is 5% glucose in water.

16. A detectable reagent according to claim 11, wherein each of said particles has a cross-section of from about 5nm to about 30nm.

17. A detectable reagent according to claim 11, wherein the detectable marker is detectable by radiometric techniques, magnetic resonance imaging or is optically detectable.

18. A detectable reagent according to claim 11, wherein said detectable marker is selected from the group consisting of radionuclides which emit gamma rays; Gd or Au.

19. A detectable reagent according to claim 18, wherein said detectable marker is ^{99m}Tc .

20. A method of targeting a drug to a fibrin site in vivo, the method comprising administering to a patient an effective amount of a reagent comprising a plurality of discrete particles dispersed in a veterinarily or pharmaceutically acceptable carrier, diluent, excipient and/or adjuvant, each of said particles comprising a plurality of layers of carbon and being capable of binding to fibrin, and at least some of said particles having

0007/0" 280E9H60

a

Sub
B 21

Sub
B 31

- 30 -

coupled thereto a drug to be targeted to the fibrin site.

21. A method according to claim 20, wherein said drug to be targeted is an anti-thrombotic or anti-cancer drug.

22. A method according to claim 20, wherein each of said particles comprises a
5 detectable marker enclosed in said plurality of layers of carbon.

Add a' > add c1

000120" 280E9H60